USER MANUAL

GOLDMUND SR150 2-CHANNEL
Universal Power Amplifier

Congratulations.

Thank you for purchasing the Goldmund *SR150 2-CHANNEL Universal Power Amplifier*.

You have acquired the best multi-usage Power Amplifier ever made for professional and domestic uses.

Please take some time to read this manual.

INTRODUCTION

The GOLDMUND SR150 2-CHANNEL UNIVERSAL POWER AMPLIFIER

Goldmund was founded in 1978 and has ever since been dedicated to the accurate reproduction of sound and image.

At Goldmund, we strive to lead in the creation, development and manufacture of the industry's most advanced technologies, including audio and video systems, home - networking and music distribution.

The guiding principle at Goldmund is to produce a precise sound with the least possible loss of quality through the different stages. Goldmund will never adopt a technology before it is sufficiently developed to satisfy the high quality standards we set. This is why Goldmund has often rejected mainstream technologies and developed its own.

W A R N I N G

No connection or manipulation must be done before reading those instructions. Damage to the amplifier may result if the following instructions are not consciously understood and applied.

SR150 2-CHANNEL Universal Power Amplifier

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1 UNPACKING

You will find in the GOLDMUND SR150 box:

- ❑ The amplifier
- ❑ The power cord
- ❑ This manual and the warranty card
- ❑ Accessories and spare fuses

Please keep the packaging in case you need to transport the amplifier at a later date or if you have to send it for maintenance.

WARNING

IF YOU NEED TO RETURN THE SR150 TO THE FACTORY OR TO YOUR LOCAL REPRESENTATIVE FOR A WARRANTY REPAIR, **PLEASE NOTE THAT IT MUST BE REPACKED IN THE ORIGINAL PACKAGING.**

THIS PACKAGING HAS BEEN DESIGNED SPECIFICALLY TO PROTECT YOUR SR150 IN TRANSIT. USE OF ALTERNATIVE PACKAGING IS LIKELY TO RESULT IN DAMAGE, INVALIDATING WARRANTY COVER.

2 CHOICE OF AMPLIFIER LOCATION AND COOLING

The GOLDMUND SR150 amplifier, as all the high quality amplifiers may generate a large amount of heat if driven at high power.

It is mandatory to allow a proper cooling of the heat sink. Avoid any location which is not properly ventilated and avoid putting other equipment on top of the amplifier.

3 LINE VOLTAGE ADJUSTMENT

An AC line voltage selection is possible inside the chassis. Please ask your dealer for assistance if the line voltage provided is not appropriate.

ATTENTION

On the 220V position, the GOLDMUND SR150 amplifier will function properly for AC voltages between 200V and 245V.

On the 110V position, the AC line must deliver between 95V and 125V. If your AC line is usually out of these tolerances, please consult your GOLDMUND dealer.

Please check the value of the mains line fuse. This fuse is located in the power cord receptacle. The lid can be removed with a small screwdriver when the cord is removed.

Use a 5A slow-blow fuse for 220V and a 8A slow-blow fuse for 110V.

4 CONNECTIONS

Check if volume control is down to zero on the preamplifier.

If you are using analog inputs, connect the interconnects between the preamp/processor and each of the power amps inputs.

If you are using a Goldmund Universal Preamplifier, connect a lineal digital cable between one of the preamp outputs and the amplifier digital input. Then change the amp switch back to digital input.

Connect the speaker cables to the red and black terminals accessible at the back of the amplifiers.

You may notice that the ground of the input and the black speaker terminal are of the same polarity. The amplifier is non-inverting in phase.

Then, connect the power cords to the back of the amplifier and plug it in the nearest wall plug. Use a 3 lugs grounded plug, for safety reasons. To get the best sound of the amplifier, avoid any multiple plug or extension cord.

5 AMPLIFIER CONTROLS

On the front plate of the GOLDMUND SR150 amplifier you will find only one switch:
The POWER key, used to power the amp on and one power Led.

When turned ON the 2 channels are immediately connected and the front panel POWER Led lights up. If you use the digital input, the lock of the digital input will indicate this by changing the Led from green to yellow.

The amp may be powered off by turning off the POWER switch at any time. The Led will fade very slowly, indicating discharge of the filter capacitors. The speakers will be disconnected after a few seconds.

It is absolutely normal that a slight sound is heard from the speakers when the amplifiers are turned ON or OFF. The SR150 is self-protected and the sound heard is corresponding to the charging and discharging of the capacitors.

On the back panel, there is a 5 Switch set which allows adjusting the D/A Phase and Gain for the digital input.

Each Switch has 2 positions : ON (high) and OFF (low)

Phase adjustment:

	Switch 1 (rightmost)	ON: 180	OFF: 0
Left Gain	- 6dB:	Switch 2: ON	Switch 3: ON
	0dB:	Switch 2: OFF	Switch 3: ON
	+6dB:	Switch 2: ON	Switch 3: OFF
	+12dB:	Switch 2: OFF	Switch 3: OFF
Right Gain	- 6dB:	Switch 4: ON	Switch 5: ON
	0dB:	Switch 4: OFF	Switch 5: ON
	+6dB:	Switch 4: ON	Switch 5: OFF
	+12dB:	Switch 4: OFF	Switch 5: OFF

6 SOUND QUALITY OPTIMIZATION

❑ Warm-up sonic effect

If the power amplifier has not been powered on for a few days, the optimum sound quality is reached after 15 minutes. This delay has been optimized to be minimal and the sonic quality when just powered on is much higher than other quality power amplifiers.

❑ Speaker polarity

Even if you have an absolute phase inverter on your preamplifier (Mimesis 22M), and even if you have carefully selected the proper line phase (see in next paragraph), there is a possibility to again increase the sonic quality of your speakers by reverting the polarity of each speaker cable at amp termination. But since the line phase and the speaker polarity interfere to each other, you have to experiment carefully with all the combinations before picking the right one.

If your preamplifier has an absolute phase inverter, this will interfere too. If it has not, don't forget the result will depend on the source, as most records and CDs have been recorded without care for the absolute phase. Be patient…

❑ Mains line phase inversion

The sonic quality of your GOLDMUND SR150 can be greatly improved if the mains AC line is properly connected. Try to invert the AC plugs of both your amplifiers, using special adapters.

We recommend that you try this carefully. You must do it in combination with the speaker polarity and/or with absolute phase switching to be sure of the best result.

7 SAFETY AND PRECAUTIONS

ATTENTION

The GOLDMUND SR150 is an extremely high speed amplifier.

Any bad ground connection can generate high frequency oscillation which is dangerous for tweeters.

It is also generally dangerous to run analog input cable and speaker cables in parallel for a long distance. If these cables are not of high quality or badly shielded, an "Antenna-Effect" can generate dangerous high-frequency oscillations.

❑ Protection against DC

The GOLDMUND SR150 is a DC-coupled amplifier. Without protection and if it is associated with a badly designed or defective analog preamplifier (often true for tube preamps and some 5 channel processors), the speakers could easily be damaged by the amplified DC.

The SR150 protects itself from such an accident by a feedback DC control that limits the DC amplified by the circuit.

This protection circuit is totally transparent and has no sonic effect.

❑ Protection against short-circuits

If one output is short-circuited by accident the amplifier self-limits its output so the current doesn't become too high.

However, such accidents should be limited over time to avoid excessive heat build-up occurring. In extreme cases, such mishandling could destroy the amplifier, which is not covered by the warranty.

There is no risk to leave the speaker terminals unconnected when the amps are on.

8 MAINTENANCE

The GOLDMUND SR150 amplifier usually requires no maintenance.

To clean your SR150 use a very soft, clean, damp cloth to avoid scratching the surface. Dampen with water or a mild detergent solution. Avoid abrasive or harsh cleansers (eg. products containing sodium carbonate). Always turn the power off before cleaning your amplifier.

9 TECHNICAL DATA

POWER

- Nominal power before clipping: 2x200 W RMS (2 - 8 Ohms). 150 W RMS (1 - 16 Ohms).
- Maximum power : > 400 W RMS (3 Ohms).
- Maximum voltage : 55 V peak. - Maximum current : > 15 A peak.

These values are for both driven channels.

FREQUENCY RESPONSE

These figures are valid for the circuit alone, at any level between 0 and nominal power.

- +/- 0.1 dB, 10 Hz - 1 MHz.
- +/- 1 dB, 6 Hz - 1.2 MHz.
- +/- 3 dB, 3 Hz - 1.4 MHz.

ANALOGUE INPUT SENSITIVITY

- Nominal level : 0.75 V.
- Input impedance : 50 kOhms.

GROUP DELAY

Propagation delay < 100 ns stable with frequency from DC to 200 kHz.

9 TECHNICAL DATA

DISTORTION

Figures valid for all levels from 0 to 20 V / 8 Ohms.

- Dynamic : TID < 0.01 % (- 80 dB).
- Static : THD < 0.01 % (- 80 dB).

SPEED

- Slew rate : > 240 V/us
- Rise time : < 260 ns.

NOISE

- Weighted ASA A : > 100 dB.

D/A CONVERTER

- Using a plugged-in Goldmund Alize4 2-channel D/A module protected against static.

OPERATING TEMPERATURE

- Room temperature : -30 to +40 degrees Celsius (-22 to +104 degrees Fahrenheit).
- Internal temperature : +45 to +65 degrees Celsius (+113 to +149 degrees Fahrenheit).

POWER SUPPLY

- Nominal line voltage : 117 or 234 V.
- Input voltage range : +/- 15 %.
- Maximum power consumption : 450 W.

SIZE AND WEIGHT

- 44 cm W x 33 cm D x 9 cm H. - Weight : 13 kg net.

WARRANTY

- 3 years parts and labor.